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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,067	07/21/2003	Jianmin Shi	80982BRLO	5159

7590

01/06/2006

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EXAMINER
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CLEVELAND, MICHAEL B

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 01/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/624,067

**Applicant(s)**

SHI, JIANMIN

**Examiner**

Michael Cleveland

**Art Unit**

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1, 10 and 29-31 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1, 10 and 29-31 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 21 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 072103.072604.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☒ Other: IDS 072505.

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## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of TBADN and rubrene in the reply filed on 11/2/2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Claims 1 and 29-31 are generic and claim 10 is directed to the elected species. Therefore, no claims are withdrawn at this time.

### ***Information Disclosure Statement***

2. The information disclosure statement filed 7/26/2004 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. Applicant appears to have provided a translation of JP 09-219289, but has not provided a copy of the patent itself. A copy is requested so that it may be properly considered.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. (U.S. Patent 5,981,082, hereafter '082).

'082 teaches a method of depositing a predoped organic light emitting material to form a layer in an organic light-emitting device (col. 7, line 26-col. 9, line 53), comprising the steps of:

(a) providing a solid mixture capable of being deposited which includes at least one light-emitting host material and at least one luminescent organic dopant material (col. 9, lines 43-53; col. 7, line 26-50); and

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(b) depositing the solid mixture to form a layer in an organic light emitting device, wherein the materials to be deposited have very close or equal evaporation temperatures (col. 9, lines 45-48).

'082 does not explicitly teach that the solid mixture is homogeneous. However, '082 teaches that the desired layer is uniform (i.e., homogenous) (col. 9, lines 48-50). One of ordinary skill in the art would have assumed that a homogeneous mixture of the sources would have been the most likely arrangement to have produced a uniform evaporated layer. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have homogeneously mixed the evaporation sources before evaporation.

Claims 29-31: The fluorescent dopant may have a concentration of 0.1-5% (col. 7, lines 41-50).

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arai '092 as applied to claim 1 above, and further in view of Shi et al. (U.S. Patent 5,935,721, hereafter '721).

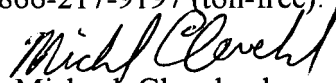
'092 teaches that the dopant may be rubrene and the host may be anthracene derivatives (col. 7, lines 27-40; col. 8, lines 49-52), but does not explicitly teach the use of TBADN. However, t-butyl derivatives of 9,10-di-(2-naphthyl)anthracene are known in the art (See, e.g., '721, cols. 7-10, especially compounds 6 and 8). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used t-butyl substituted 9,10-di-(2-naphthyl)anthracene such as TBADN with a reasonable expectation of success because the selection of something based on its known suitability for its intended use has been held to support a *prima facie* case of obviousness. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Cleveland whose telephone number is (571) 272-1418. The examiner can normally be reached on Monday-Thursday, 7-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Michael Cleveland  
Primary Examiner  
Art Unit 1762

12/23/2005